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A photograph of a white plastic pill bottle lying on its side, with numerous white, round tablets spilled out onto a light-colored surface. The background is a soft, out-of-focus light grey.

Annual Report 2011



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Executive summary

The core function of the National Poisons Information Centre (NPIC) is to provide information, by telephone, to assist in the treatment of poisoning. We answered a total of 9521 enquiries in 2011. Of these, 9219 enquiries were about human poisoning and we followed-up 227 serious or unusual cases to determine the outcome. Follow-up is usually performed by telephone and can involve multiple calls to nursing and/or medical staff. We are very grateful to everyone who takes the time to talk to us when we call to follow-up a case. The remaining enquiries included 234 non-emergency requests for information and 68 enquiries about poisoning in animals. Most enquiries were from medical and nursing staff in GP practices/co-ops and in hospitals, while 22% were from members of the public.

Overall, 61.3% of human cases were suspected accidental poisonings and 20.4% were cases of intentional self-poisoning or recreational abuse. Paracetamol remains the most common drug involved in human poisoning enquiries, and laundry products the most common group of household products.

Total enquiries in 2011 fell by 1.7% which is a smaller reduction than in previous years. It is interesting that there was also a 10.4% decrease in use of TOXBASE®, after several years of regular annual increases. Some, but not all, of this reduction in TOXBASE® use may be due a slight decrease in presentations to hospital following deliberate self-harm from drug overdose.

In January 2011, we launched a dedicated telephone number for the general public, on a pilot basis, operating between 9am and 5pm from Monday to Friday. The aim was to determine the impact that advertising the service to the public would have on workload. We were surprised that calls from the public decreased in 2011, by 5.6% overall compared to 2010. Closer examination of call data showed that calls from members of the public had increased by 7.9% between 9am and 5pm, when the Public Poisons Information Line was open. However, there was a 17.4% decrease in calls from the public between 5 and 10pm when the new number was unavailable. Consequently, in January 2012, we extended the hours of the Public Poisons Information Line to 8am-10pm every day.

We continue to contract the UK National Poisons Information Service to answer enquiries between 10pm and 8am each day. This is a cost effective way to provide a 24-hour service and requires good, on-going communication with the UK centres. Our background activities during the year included surveillance of trends in poisoning, managing information on the composition of products and liaison with industry and relevant regulatory authorities.

As a small national centre, we are fortunate to have close links with the UK National Poisons Information Service, which enabled our staff to participate in CPD activities with our colleagues in the UK on several occasions during the year. We also hosted a very successful CPD day on 17th June in Beaumont Hospital, followed by a retirement dinner for our former Director, Dr Joseph Tracey.

INTRODUCTION

The National Poisons Information Centre (NPIC) provides an information service, mainly by telephone, to doctors and other healthcare professionals throughout Ireland, assisting them in the diagnosis and management of poisoning. The telephone information service for healthcare professionals operates 24 hours a day, every day of the year. Our own staff answer enquiries between 8am and 10pm each day, while night-time calls are automatically diverted to the UK National Poisons Information Service (NPIS). The extra call charges are borne by Beaumont Hospital so there are no additional costs to callers.

The NPIC launched a dedicated Public Poisons Information Line on a pilot basis in January 2011, operating between 9am and 5pm Monday to Friday and targeted towards parents and those caring for young children. The aim was to determine the impact that advertising the service to the public would have on workload. We give advice to members of the public on the need for medical attention following accidental poisoning only. It is our policy to refer all cases of intentional self-poisoning for medical assessment.

The main source of information used when answering enquiries is TOXBASE, the clinical toxicology database of the UK NPIS. A variety of other information sources are also available to staff. We decided to end our subscription to TICTAC (tablet identification software), after a review of enquiries where we used this software showed that most did not involve cases of poisoning, or suspected poisoning.

The NPIC keeps written records of all enquiries which staff then log on a computer database (UKPID). All in-coming and out-going calls are recorded, for quality assurance and training purposes.

Staff followed-up a number of selected enquiries by telephone to determine the outcome of the case. We are very grateful to the medical and nursing staff for taking the time to give us this follow-up information.

Information sources

Computer databases:

TOXBASE

POISINDEX

In-house database.

Textbooks.

Journal articles.

Safety data sheets.

STAFF

Clinical Director:

Dr Edel Duggan MB, BCh, BAO, MD, FFARCSI

Dr Joseph A Tracey MB, BCh, DCH, FFARCSI, DABA (locum April to October)

Manager:

Ms Patricia Casey BSc, DipMedTox

Clerical Officer:

Ms Annette Cooke

Poisons Information Officers:

Mr John Herbert BSc, DipMedTox

Ms Nicola Cassidy BSc, MMedSc, DipMedTox

Ms Elaine Donohoe BSc, MSc, DipMedTox

Mr Feargal O'Connor BSc, Certificate in Med Tox

Ms Niamh English BSc, MSc, DipMed Tox

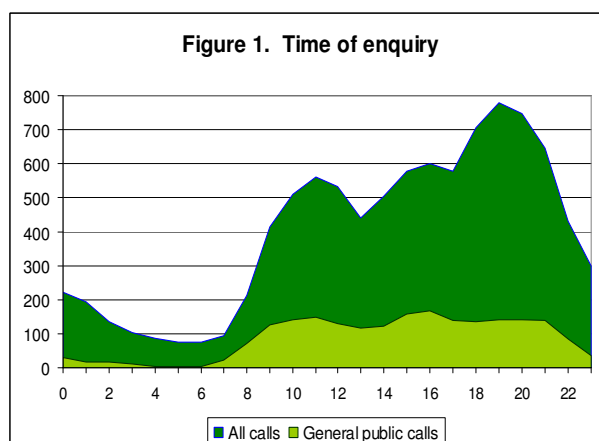


The Poisons Information Officers and Manager staff the Centre's emergency phone lines between 8am and 10pm each day (7 days a week). They are all scientists with additional training and postgraduate qualifications in Medical Toxicology. If necessary, they can refer complicated or serious cases to the Director for further advice on treatment.

ENQUIRIES

The NPIC received 9521 enquiries in 2011, a decrease of 1.7% from 2010. We received 7813 of these enquiries (82.1%) between 8am and 10pm. The NPIS in the UK answered a further 1708 (17.9%) calls on our behalf between 10pm and 8am.

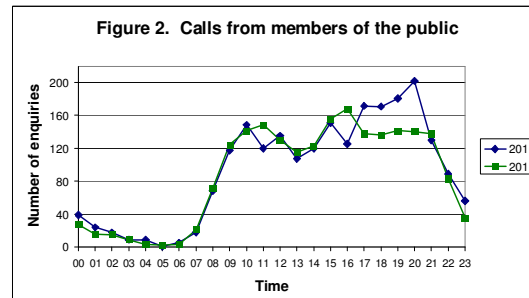
The Centre received an average of 26 calls per day in 2011 and 18:00-20:59 was the busiest time of day (23.5% of enquiries, Figure 1). 9219 (96.1%) enquiries concerned human cases of poisoning, 68 (0.7%) poisoning in animals and 234 (2.5%) were requests for information.



Source of enquiry	Number of enquiries	%
GP/Primary Care	4055	42.6
Hospital	2805	29.5
Member of public	2095	22.0
Community pharmacist	241	2.5
Other/Unknown	325	3.4
Total	9521	

GP's/Primary care, hospitals and members of the public were the most frequent callers. Calls from GPs/Primary Care increased by 9.5% in 2011, compared to 2010. In contrast, calls from hospitals and members of the public decreased (by 12.8% and 5.6% respectively).

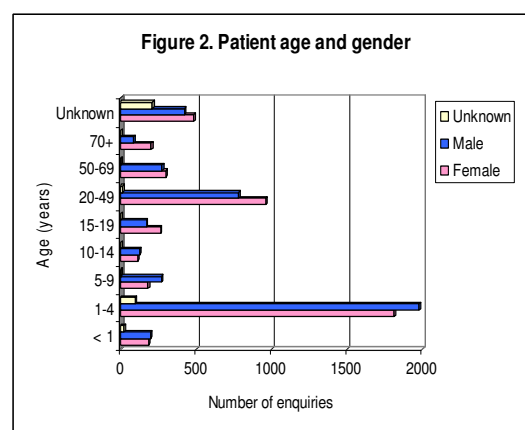
Closer examination shows that enquiries from the public actually increased by 7.9% between 9am and 5pm, when the Public Poisons Information Line was open, but decreased by 17.4% between 5 and 10pm (Figure 2). Consequently, in January 2012, we extended the opening hours of the Public Poisons Information Line to cover 8am to 10pm every day.



Human cases of poisoning

9219 enquiries concerned human cases of poisoning. 4626 (50.2%) of these were children under 10 years and males outnumbered females in this age group. 2640 (28.6%) enquiries were about adults (≥ 20 years) with a predominance of females in this age group.

93.3% of poisoning incidents occurred in the home or a domestic setting. Small proportions occurred at work (2.3%), in nursing/care homes (1.4%), hospitals (0.8%), schools (0.5%), public places (0.4%) or other/unknown locations (1.3%).



More than half (61.3%) of the human cases were suspected accidental poisonings, 19.1% were intentional poisoning, 15.3% were therapeutic errors, 1.3% involved recreational abuse and 3.0% had another or unknown intent.

Agents in human cases

Drugs (pharmaceuticals and drugs of abuse), industrial chemicals and household products were the main product groups involved in human cases.

Drugs were most common in all age groups. Paracetamol remains the most common drug: 1398 of the products ingested contained this drug. Ibuprofen was the next most common drug (482 products).

	0-9 years	10-19 years	≥20 years	Unknown	Total
Drugs	3350	959	4083	845	9237
Industrial	1037	134	751	367	2289
Household	1279	79	226	242	1826
Plant/Fungi	223	34	68	50	375
Cosmetic	293	30	53	25	401
Agrochemical	103	7	92	65	267

Most common drug enquiries in descending order of frequency (human cases only)

Inclusion in this list does not mean that these agents are toxic. It merely shows that the Poisons Information Centre received enquiries about these substances.

Paracetamol	Flurazepam	Atorvastatin
Ibuprofen	Venlafaxine	Carbamazepine
Codeine	Zolpidem	Diphenhydramine
Amoxicillin	Olanzapine	Risperidone
Alprazolam	Unknown drug	Chlorpromazine
Zopiclone	Amitriptyline	Tripolidine
Diazepam	Pseudoephedrine	Domperidone
Multivitamins	Fluoxetine	Temazepam
Escitalopram	Sodium valproate	Lithium
Aspirin	Mefenamic acid	Warfarin
Quetiapine	Lamotrigine	Montelukast
Clavulanic Acid	Mirtazapine	Clonazepam
Pregabalin	Levothyroxine/Thyroxine	Citalopram
Diclofenac	Prednisolone	Folic Acid
Oral Contraceptive	Cetirizine	Vitamin D
Tramadol	Amlodipine	Iron
Caffeine*	Sertraline	Clotrimazole

** Caffeine is a common ingredient in many analgesic products but does not contribute significantly to acute toxicity.*

Common household product enquiries

The most common household products were laundry products, particularly liquid detergent capsules, and cleaning products. The majority of enquiries about these products concerned children less than 10 years old.

Fabric cleaning/care product	Disinfectant/antiseptic/sanitiser
Cleaning products	Decorative/DIY/building product
Bleach	Automotive product
Dishwasher product	Air freshener
Toilet cleaner/freshener	Toy/Novelty

OUTCOME

227 (2.5%) human cases were followed-up. Most of these patients recovered completely but 16 suffered sequelae, 5 patients died as a result of poisoning, the outcome of 16 cases could not be determined and in 8 cases, including two further fatalities, the features were not related to poisoning. Pharmaceuticals were implicated in three fatal cases, drugs of abuse/alcohol in one and agrochemicals in one.

TOXBASE

TOXBASE is the on-line clinical toxicology database of the UK National Poisons Information Service and has been available to Irish hospital emergency departments and intensive care units since 2001. Irish users, excluding the NPIC, accessed TOXBASE on 9243 occasions in 2011, a 10.4% decrease compared to 2010. Hospital emergency departments were the main users (99.0% of sessions). Some, but not all, of this reduction in TOXBASE® use may be due to slightly fewer presentations to hospitals in 2011 following deliberate self-harm from drug overdose¹.

WEBSITE

The NPIC website, www.poisons.ie, was visited 9774 times during 2011, an average of 815 visits per month.

The section on low toxicity substances was the most popular. The news page, healthcare professionals sections, and the antidotes page were also popular.



¹ National Suicide Research Foundation. National Registry of Deliberate Self Harm Annual Report 2011. Cork: National Suicide Research Foundation, 2012.

OTHER ACTIVITIES

CPD DAY

We hosted a very successful, joint CPD day with the UK National Poisons Information Service on Friday 17th June, in Beaumont Hospital. The topics covered included medication errors, inadvertent IV paracetamol overdose, methotrexate overdose, Olympic preparedness, radiation exposure, hydrofluoric acid and organophosphorus insecticides. Nicola Cassidy and Dr Tracey gave the presentation on “Inadvertent IV paracetamol overdose”.

Product data

The Director and Manager of the NPIC were active members of a European working group convened to develop harmonised guidelines for product information for Poisons Centres, which mainly conducted its work via email during 2011. The guidelines were approved by the Board of the EAPCCT and formed the basis of further discussions with the European Commission and industry groups during the year.

Newsletter

We produced two issues of our newsletter for emergency department staff during the year, in January and July. The topics covered included early management of the poisoned patient, methotrexate, tramadol, amitriptyline, heroin, giant hogweed, the role of L-carnitine in the treatment of sodium valproate overdose, iron poisoning, drain cleaners and carbon monoxide.

COMMITTEES

The Director sits on the UK National Poisons Information Service Clinical Standards Group and Dr Duggan attended two meetings of this group in 2011. Dr Duggan and John Herbert are members of the Early Warning Early Trends Sub-Committee of the National Advisory Committee on Drugs and attended two Committee meetings during the year, as well as contributing to email discussions about emerging trends.

Elaine Donohoe remains on the TOXBASE editing group and she attended two meetings of the group as well as one teleconference in 2011. Patricia Casey is a member of the UKPID working group, and the EAPCCT working group on harmonisation of product data. Nicola Cassidy joined the Medication Safety Forum and attended three meetings during 2011.

PUBLICATIONS

Papers

The epidemiology and type of medication errors reported to the National Poisons Information Centre of Ireland.

Cassidy N, Duggan E, Williams DJP, Tracey JA.
Clin Toxicol (Phila). 2011; 49 (6); 485-491.

Mushroom poisoning in Ireland: the collaboration between the National Poisons Information Centre and expert mycologists.

Cassidy N, Duggan E, Tracey JA.
Clin Toxicol (Phila). 2011; 49(3); 171-6.

PUBLICATIONS

Abstracts

Too much of a good thing: dosing errors with infant vitamin D3 supplements.

Casey PB, Cassidy N, Tracey JA.

Clin Toxicol (Phila). 2011: 49(3); 207.

Bath salts and plant feeder pills: synthetic cathinone abuse in Ireland.

Herbert JX, Tracey JA, Duggan E.

Clin Toxicol (Phila). 2011: 49(3); 213.

Nine years of TOXBASE® in Ireland: the impact of an online poisons database.

McGrory CE, Casey PB, Tracey JA, Good AM, Bateman DN.

Clin Toxicol (Phila). 2011: 49(3); 238.

The effect of legislation on synthetic cannabinoid abuse in Ireland.

Herbert JX, Duggan E, Tracey JA.

Clin Toxicol (Phila). 2011: 49(3); 240.

Paediatric overdose with cough and cold medicines: the Irish experience.

Casey PB, Herbert JX, Tracey JA.

Clin Toxicol (Phila). 2011: 49(3); 248.

E-letter

When facts become fiction - a tale of energy drinks and Chinese whispers.

Cassidy N, Tracey JA

http://pediatrics.aappublications.org/content/127/3/511.full/reply#pediatrics_el_51303

(Reply to an article by Seifert SM, Schaechter JL, ER Hershorin, SE Lipshultz entitled Health Effects of Energy Drinks on Children, Adolescents, and Young Adults. Pediatrics 2011; 127:3 511-528; doi:10.1542/peds.2009-3592).

Non-peer reviewed

The ABC of poisoning in children.

Cassidy N.

Childcare.ie 2011: April/May issue; pages 8-9.

PRESENTATIONS

Paediatric overdose with cough and cold medicines: the Irish experience.

Oral presentation at EAPCCT Congress (P Casey).

Inadvertent IV paracetamol overdose.

Oral presentation at NPIC/NPIS CPD meeting (N Cassidy and J Tracey).

Don't delay - put poisons away.

Presentation to Servier Laboratories staff (E Donohoe).

Carbon Monoxide Poisoning

Presentation to "Phoenix Park Study Group" – Occupational Health (E Duggan)

CONTINUING PROFESSIONAL DEVELOPMENT

March	CPD Day, Newcastle	Attended by F O'Connor
April	TOXBASE editing group meeting, Birmingham	Attended by E Donohoe
May	EAPCCT Congress, Dubrovnik	Attended by P Casey and Dr Tracey. J Herbert and P Casey had poster presentations and P Casey gave an oral presentation.
June	CPD day, Dublin.	Attended by all staff.
October	Introduction to social media, Kells	Attended by P Casey
November	Systems Analysis Training, Beaumont Hospital	Attended by P Casey
	Introduction to social media, Kells	Attended by N English
	TOXBASE editing group meeting, Edinburgh	Attended by E Donohoe
	Adult literacy and plain English workshop, Dublin	Attended by P Casey and N Cassidy
December	IMB information day on Pharmacovigilance legislation, Dublin	Attended by N Cassidy and J Herbert

